

William H. Shaw's Interpretation of Marx's Historical Theory

Guanghua Xiong*

School of Marxism, Jilin University, Changchun 130000, Jilin, China

*Author to whom correspondence should be addressed.

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Abstract: Centering on the two core concepts of productive forces and relations of production, William H. Shaw offers a renewed interpretation and systematic reorganization of Marx's historical materialism based on a close reading of the classical texts. In his 1978 book *Marx's Theory of History*, Shaw reconstructs Marx's historical theory into a form of "technological determinism." Following the logical structure of this book, the veil of technological determinism can be lifted from three analytical levels: conceptual dissection, essential reinterpretation, and empirical explanation. From the standpoint of the dynamics of productive forces, Shaw probes the essence of Marx's historical theory and employs technological determinism to analyze changes in socio-economic formations. A scientific understanding of technological determinism not only helps us to accurately grasp Shaw's thought and his analytical Marxism, but also enables us to reconsider historical materialism and the role of science and technology in contemporary practice.

Keywords: Technological determinism; William H. Shaw; Productive forces

Online publication: December 31, 2025

1. Introduction

It is well known that Marx's theory of history addresses whether social and historical development follows objective laws and what drives such development. However, many Western Marxist scholars, who place human consciousness at the center, tend to argue that history is an unfolding of human subjectivity. William H. Shaw explicitly points out that although there is an abundance of works interpreting Marx's theory, almost no study has addressed Marx's historical theory—the specific object in question—with the sustained and systematic treatment it requires^[1]. As a result, research on Marx's historical theory has fallen into a maze. To resolve this problem, Shaw employs methods of logical analysis to clarify the concepts Marx used, attempts to uncover the subtle distinctions within Marx's theory of history, and—through what he regards as orderly and rigorous arguments—reveals the meaning of Marx's historical theory. Ultimately, he replaces Marx's productive-forces determinism with what he calls technological determinism.

2. Conceptual dissection: Clarifying “productive forces” and “relations of production” on a textual basis

In *Marx's Theory of History*, Shaw selects two central concepts in Marx's historical materialism: productive forces (means of production) and relations of production. Through textual analysis, he explicates the meaning of these two concepts and clarifies their position within Marx's broader conception of society. In studying the driving forces behind historical change and social evolution, clarifying productive forces and relations of production is essential.

2.1. Distinguishing the concept of “productive forces”

What, after all, are productive forces? In general terms, both labor power and means of production involved in any labor process can be regarded as what Marx understood as productive forces. Marx typically used the term to refer to labor productivity: human activity creates means of production or engages with means of production in the labor process ^[2]. The specific structure of this concept is shown in **Figure 1**, which will be elaborated upon below.

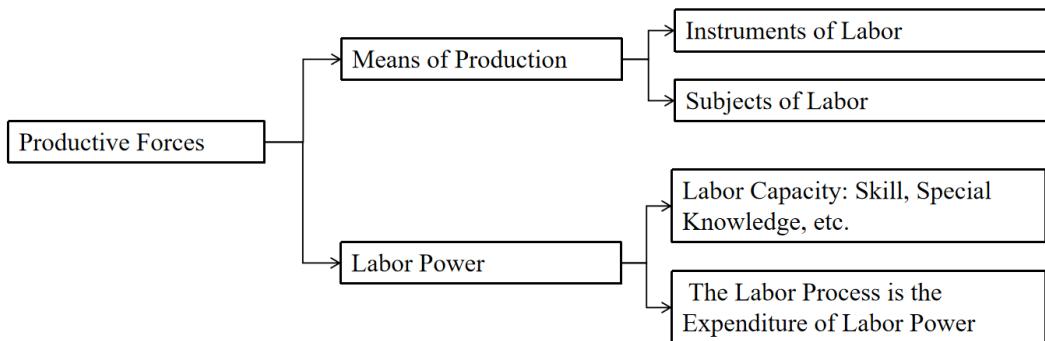


Figure 1. Structure of productive forces

First, with regard to the means of production. The means of production constitute the objective conditions of labor; they refer to the material factors of production. Any labor process necessarily includes two aspects: instruments of labor and objects of labor. The term “instruments of labor” generally refers to the tools or facilities required for labor—such as workshops, land, and other necessary items—which may be active or inactive. The “object of labor” refers to the material upon which labor acts. As Marx writes, “In the actual labor process, the worker consumes the instruments of labor as the conductor of his own activity, and the object of labor as the material in which his labor is expressed” ^[3]. Shaw argues that this is an important but often neglected part of *Capital*. Conceptually, the object of labor and the instruments of labor are clearly distinct, though Marx also acknowledges that the distinction is not always rigid.

Second, regarding labor power. Labor power is the capacity for labor; it denotes the productive abilities of producers—including physical strength, knowledge, skills, and competencies. Only human labor power constitutes a productive force. Shaw further distinguishes labor from labor power: labor is merely the abstract aspect of any labor process and is what actually produces; labor power, by contrast, is the factor utilized and consumed in the production process. Through historical development, labor power provides continuity to the productive forces. Based on his analysis, Shaw affirms that scientific and technological knowledge should be understood as an attribute of labor power—a manifestation of the development of workers' capacities—rather

than something that should be excluded from production in the name of materialism.

2.2. Clarifying the connotation of “relations of production”

What, then, are relations of production? Shaw argues that relations of production are “the relations within which production takes place”; they are the factors that combine with productive forces. Relations of production consist of two major components: labor relations and property relations.

First, regarding labor relations. Labor relations govern the labor process itself and represent the material and technical relations abstracted from their specific social and historical formations ^[4]. Labor relations pertain to the use-value dimension inherent in material production and have consistently been technical-material relations within the production process. Under any social formation, productive forces must necessarily be linked to labor relations.

Second, regarding property relations. Property relations encompass not only the actual ways in which people transform nature, but also the ways in which they regulate their interaction with the productive forces and with the products resulting from production ^[5]. Property relations express the material social character of production. While property relations can determine the form of labor relations, labor relations provide the substantive content upon which property relations are based.

3. Essential reinterpretation: Uncovering the dynamic factors in historical development

After clarifying the fundamental concepts, Shaw proceeds to examine the relationship between the productive forces and the relations of production as presented by Marx. Shaw insists that Marx regarded the productive forces as the decisive factor in historical development. Drawing upon Marx’s own texts, he uncovers the logic through which Marx treated productive forces as the dynamic element in history.

3.1. The primacy of the productive forces

At the beginning of Chapter Two of *Marx’s Theory of History*, Shaw directly cites Marx’s formulation in the *Preface to A Contribution to the Critique of Political Economy*: The sum total of the forces of production accessible to men determines the social condition ^[6]. He illustrates that the development and transformation of relations of production result from the development of material production. The productive forces constitute the material foundation of all social organization, and the growth of productive forces signifies social progress.

To clarify Marx’s view—namely, that the productive forces are the long-term determining factor of historical change—Shaw distinguishes between two propositions. The first is that changes in the relations of production are always the result of changes in the productive forces. The second is that changes in the productive forces necessarily lead to changes in the relations of production. Changes in the productive forces include two aspects: internal changes within the productive forces and innovations that function as elements of the productive forces. Changes in the relations of production involve qualitative transformations in both labor relations and property relations.

First, changes in the productive forces can be accommodated by existing relations of production; productive forces may continue to improve even without advances in property relations. Second, advanced productive forces exert pressure on relations of production until these relations must change. Yet such changes do not take effect immediately—the timing of transformation depends on the superstructure’s counter-effect on the productive forces. Of course, this counter-effect has limits; it operates only within the range permitted by the

prevailing level of productive forces. Thus, it does not undermine the overall efficacy of productive forces in determining changes in the relations of production^[7].

3.2. The reasons the productive forces hold the dominant position

Shaw argues that Marx and Engels did not provide fully rigorous arguments for why the productive forces occupy a dominant position. To justify their primacy, Shaw first refutes three alternative hypotheses through counter-argument, thereby demonstrating that Marx's position is, in effect, a form of technological determinism. He then supplements his analysis with reasons supporting this view.

The three rejected hypotheses are:

- (1) relations of production may be determined by factors in the superstructure or by intermediate factors;
- (2) relations of production may develop autonomously;
- (3) productive forces and relations of production may mutually determine one another.

Shaw dismisses the first hypothesis as contrary to Marx's theory. Regarding the second, he concedes that relations of production may sometimes evolve autonomously—for example, through the unfolding of internal contradictions or crises inherent in capitalist relations of production. Yet relations of production are not an independently developing absolute; the inherent contradictions of capitalism become insoluble only at specific historical moments, and only the development of the productive forces can ultimately bring about changes in relations of production. The third hypothesis contradicts Marx's own foundational statements^[8].

Shaw then offers reasons why the productive forces constitute the primary driving force. People do not willingly abandon the productive means they have already acquired; thus, when relations of production come into conflict with productive forces, the former must be altered in order to prevent a decline in productive forces. Marx notes in *The Poverty of Philosophy*: Since the point is not to lose the fruits of civilization—productive forces already acquired—the traditional forms in which these productive forces developed must be broken^[9]. This indicates that contradictions inevitably arise between productive forces and relations of production, destabilizing economic equilibrium. As people cannot abandon existing productive forces, they must adjust the relations of production to accommodate the productive forces, thereby restoring economic balance.

3.3. Materialism and the dynamic role of the productive forces

From the standpoint of materialism, Shaw argues that to properly explore the determinism of productive forces, one must situate relations of production within the broader structure of historical materialism. First, various misinterpretations of Marx's historical materialism—such as economic determinism—must be corrected. Second, the laws described by Marx apply not only to society in general but also to each specific type of socio-economic organization. Finally, the various aspects of social life always interact; they are not independent variables.

From the perspective of productive forces as a dynamic factor, the historical level of the productive forces determines both existing and emerging modes of production. More broadly, the driving force of historical development lies in the conflict and adaptation between the productive forces and the relations of production. Shaw believes that Marx provides several key insights into their general characteristics^[10]. First, no social formation ever disappears before it has exhausted all the productive forces for which it is adequate. This assigns to each socio-economic formation the highest potential level of productive development it can accommodate. Second, when contradictions arise, new and more advanced relations of production replace old ones. Third, the evolution of human socio-economic life unfolds through successive modes of production and social formations.

Taken together, these analyses reveal why Shaw reinterprets Marx's historical theory as a form of technological determinism. Among the components of the productive forces, the means of production—especially tools and instruments—serve as a primary indicator of the development level of the productive forces. The development of tools, in turn, depends chiefly on the technological factors embedded within them. Thus, the key to the development of productive forces is the advancement of science and technology. Technology is not only a productive force but the primary productive force. Through its distinctive properties, science and technology permeate the productive forces, shaping and determining their components and basic structure, and thereby determining the development of productive forces as a whole. For this reason, "technology," as both an element and a determining force of productive forces, becomes the decisive factor in productive-force development. Hence, Shaw reduces "productive forces determinism" to "technological determinism."

4. Empirical explanation: The historical argument for technological determinism

Marx's materialist conception of history does not focus on day-to-day changes in the relationship between productive forces and relations of production; rather, it investigates these changes across long historical intervals. Chapter Three of *Marx's Theory of History* describes the transition from capitalism to socialism and explains how this transition results from the mismatch between productive forces and relations of production. Chapter Four then applies productive-forces determinism to interpret the historical evolution of several major modes of production in world history. The following discussion synthesizes the content of these chapters and presents it in the order of historical development.

4.1. The long march from pre-capitalist society to capitalism

Pre-capitalist society can be divided into three stages: prehistoric society and primitive communism, class society (slavery), and feudal society.

Shaw first explains Marx's account of early societies. During the primitive stage, the community was the precondition of production. The Asiatic, ancient classical, and Germanic forms were all expressions of primitive communism. After Marx accepted the anthropological findings of Lewis Henry Morgan, the picture changed: slavery emerged within the communal form, the community dissolved, war generated propertyless tribes, and—combined with rising productive forces that produced surplus value—this led to the first class society.

Class society then went through two further stages characterized by land ownership and private property. With the fall of the Roman Empire, the decline of manor-based slavery, and the incursions of Germanic peoples, the feudal system gradually took shape. Feudal relations of production were predominantly personal-dependence relations: peasants used means of production they did not own, performing surplus labor for landlords while also working for their own subsistence.

Finally, as productive forces expanded, peasants gained greater control over their private property. Personal dependence gradually transformed into purely economic relations, while the development of the division of labor and exchange facilitated primitive accumulation. Feudal society thus acquired the conditions necessary to transition toward capitalism. The long march, therefore, reached its conclusion.

4.2. The transition from capitalist society to socialism

Regarding the transition from capitalism to socialism, Shaw divides his discussion into two parts. He first presents the developmental tendencies of capitalism as set out in Volume I of *Capital*, supplementing this with an additional interpretation of the *Preface to A Contribution to the Critique of Political Economy*. The second

part concerns the advent of socialism^[11].

In the first part, Shaw analyzes the capitalist process of production and circulation, explaining the formation of capital accumulation, the relative surplus population, and capitalist crises. The contradiction between the socialization of production and private appropriation constitutes the intrinsic defect of capitalism. While capitalism powerfully advances productive development, it simultaneously fetters the further progress of productive forces. This contradiction identifies the historical mission of establishing new relations of production.

In the second part, Shaw clarifies the features of the transition toward socialism. The emergence of joint-stock companies provides a material basis for new relations of production and promotes a historic rupture with the old system. However, the productive forces alone cannot create this new relation; this task falls to the proletariat. The proletarian revolution represents a deepening of the struggle between labor and capital and arises from the conflict between productive forces and relations of production.

5. Contemporary implications: Correctly positioning “science and technology” and “human beings”

In Shaw’s exposition, he strongly affirms the tremendous driving force that science and technology exert on social and historical development. At the same time, because he assigns an excessively decisive role to technology and regards human beings merely as passive bearers of historical movement, he fails to sufficiently recognize the agency of the people in historical processes. Although the eras of Marx and Shaw differ greatly from our own, we must remain vigilant against the tendency to absolutize the role of technology—a tendency that risks weakening human subjectivity.

On the one hand, science and technology must be situated within a historically grounded and objective framework. Today, science not only brings unprecedented freedom but also imposes new constraints. Thus, while affirming the power of technology, we must also critically reflect on its dangers. As the Frankfurt School emphasized, technological rationality exhibits a dual character: “technological progress = the growth of social wealth = the expansion of domination (technology becomes an alienated force).” In the pursuit of economic development, we must also confront the negative consequences brought by technological advancement, including the dangers of nuclear weapons, ecological imbalance, demographic crises, environmental degradation, energy shortages, and moral decline.

On the other hand, the central position of human beings as the subjects of social production must be reaffirmed. Although the development of productive forces does drive transformations in the mode of production, such transformations require human practice—the key mediating subject—to be realized. Therefore, attention must be paid to human internal needs and to the ongoing awakening of the human capacity to transcend in pursuit of self-fulfillment. Under the pervasive influence of capital, technology, and mass culture, modern individuals increasingly repress themselves and gradually lose their sense of transcendence. To revive human self-awareness as subjects, alienated labor must be overcome, which calls for the coordinated efforts of “state—society—individual.”

6. Conclusion

Following the argumentative structure of *Marx’s Theory of History*, this article has accomplished three tasks. First, at the conceptual level, it clarified the connotations and boundaries of the categories of productive forces

and relations of production, demonstrating that science and technology—constituting the objectified form of labor power—have become deeply embedded in the core of productive forces. Second, at the essential level, it reconstructed Shaw's logic of technological determinism, emphasizing that productive forces occupy a primary position in historical conflicts due to their accumulative nature. Third, at the empirical level, it applied a long-duration historical narrative to verify the explanatory power of this paradigm for macro-institutional change.

Through this framework, William H. Shaw reminds us that when the technological foundation of the means of production undergoes a qualitative transformation, the entire social formation risks moving through phases of adaptation, breakdown, and reorganization. In this sense, the task of the future is not only to “catch up with technology” but also to advance the simultaneous projects of “taming technology” and “liberating human beings”—to transform algorithms, data, and machines into public goods, and to enable workers to regain subjectivity through reskilling and democratic governance.

Disclosure statement

The author declares no conflict of interest.

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